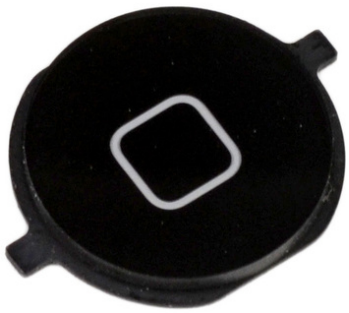
iPhone 4S Home Button Replacement

Replace a broken home button on your iPhone 4S.

Written By: Walter Galan



INTRODUCTION

Use this guide to replace a broken home button.

TOOLS:

- P2 Pentalobe Screwdriver iPhone (1)
- SIM Card Eject Tool (1)
- Phillips #000 Screwdriver (1)
- iFixit Opening Tools (1)
- 2.5 mm Flathead Screwdriver (1)
- Tweezers (1)

PARTS:

- iPhone 4S Home Button (1)

Step 1 — Rear Panel

Before you begin, discharge your iPhone battery below 25%. A charged lithium-ion battery can catch fire and/or explode if accidentally punctured.

- Power off your iPhone before beginning disassembly.
- Remove the two 3.6 mm Pentalobe P2 screws next to the dock connector.

  Be sure the driver is well seated when removing Pentalobe screws, they are very easy to strip.

During reassembly, we recommend you replace the 5-point screws with equivalent Phillips screws. Our Liberation Kit provides the tools and screws needed to replace the Pentalobe screws with Phillips screws.

Step 2

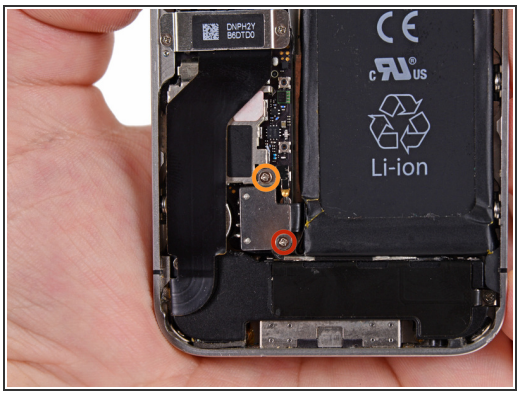
- Push the rear panel toward the top edge of the iPhone.

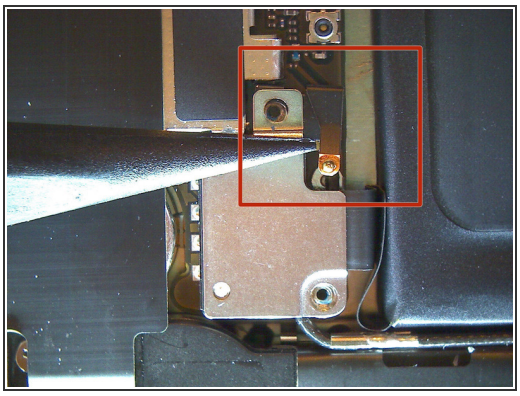
The panel will move about 2 mm.

Step 3

- Pull the rear panel away from the back of the iPhone, being careful not to damage the plastic clips attached to the rear panel.
- Remove the rear panel from the iPhone.

Step 4 — Battery





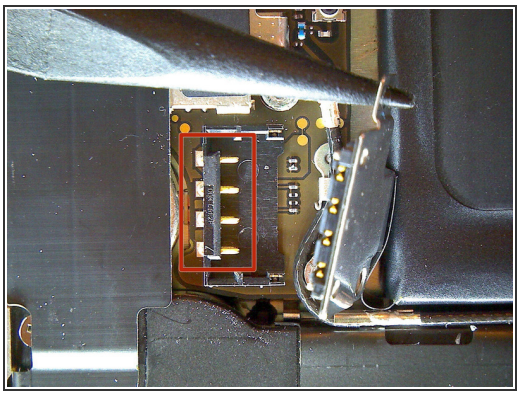
- Remove the following screws securing the battery connector to the logic board:
  - One 1.7 mm Phillips screw
  - One 1.5 mm Phillips screw.
- Use a plastic opening tool to gently detach the battery connector from the socket on the device. Start lifting off the connector from the bottom side, by placing the tip of the tool between the loudspeaker enclosure and the metal cover of the connector.

The battery connector comes off vertically from the logic board. Do not apply force sideways.

Pay attention to the pressure contact underneath the top screw of the battery connector. This may come loose while prying the battery connector from its socket.

Step 5





- Use a plastic opening tool to pull the pressure contact from underneath the battery connector.

⚠ When reinstalling the pressure contact, be sure to clean it with a degreaser such as windex or isopropyl alcohol. The oils on your fingers have the potential to create wireless interference.

⚠ Take notice of the position of the small black ground clip on the upper screw of the battery connector. This clip is attached only by the upper screw. When reinstalling, it must be aligned so the gold contact point will press against the back cover.

- Be careful not to rip off the battery connector socket soldered on the logic board. There are 4 very small soldering points awaiting this mistake!

Step 6

- Insert the edge of a plastic opening tool between the battery and the outer case near the bottom of the iPhone.
- Run the plastic opening tool along the right edge of the battery and pry up at several points to completely separate it from the adhesive securing it to the outer case.

Step 7

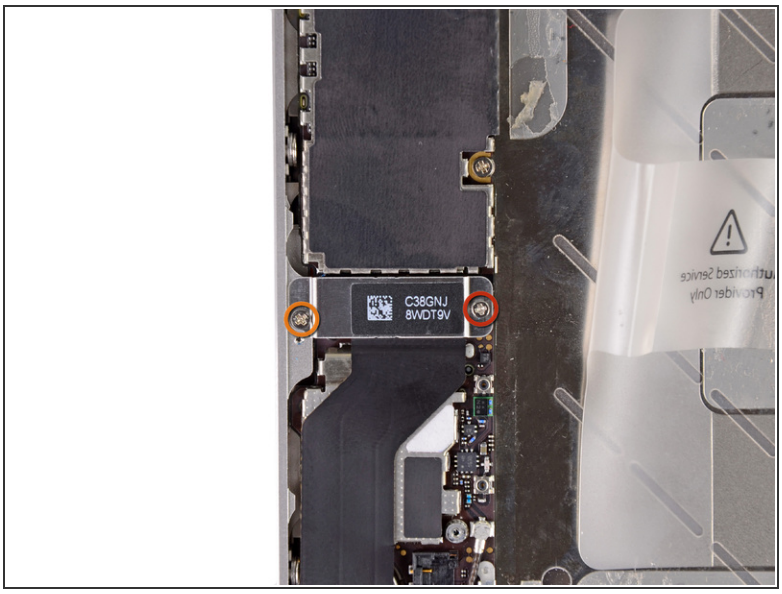
- Use the exposed clear plastic pull tab to peel the battery off the adhesive securing it to the iPhone.

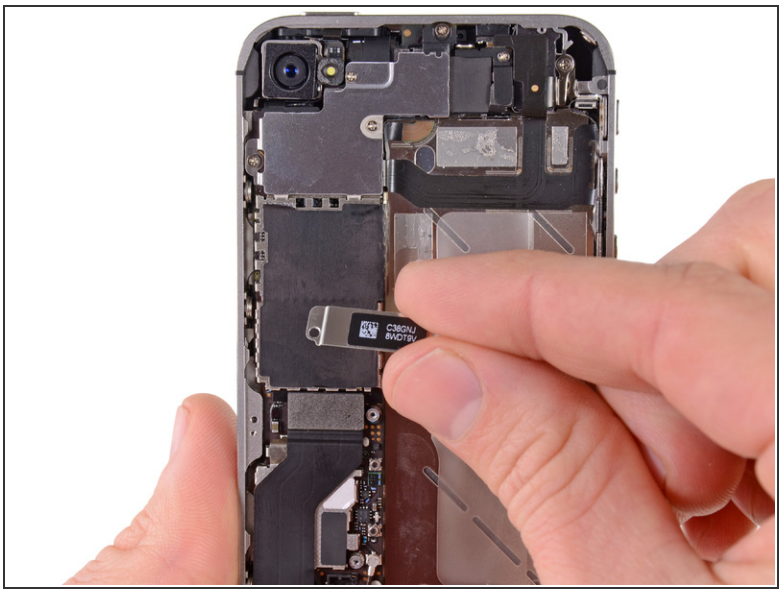
⚠ Be careful not to pull the plastic pull tab too hard as it can be ripped off very easily.

- Remove the battery.

Perform a hard reset after reassembly. This can prevent several issues and simplify troubleshooting.

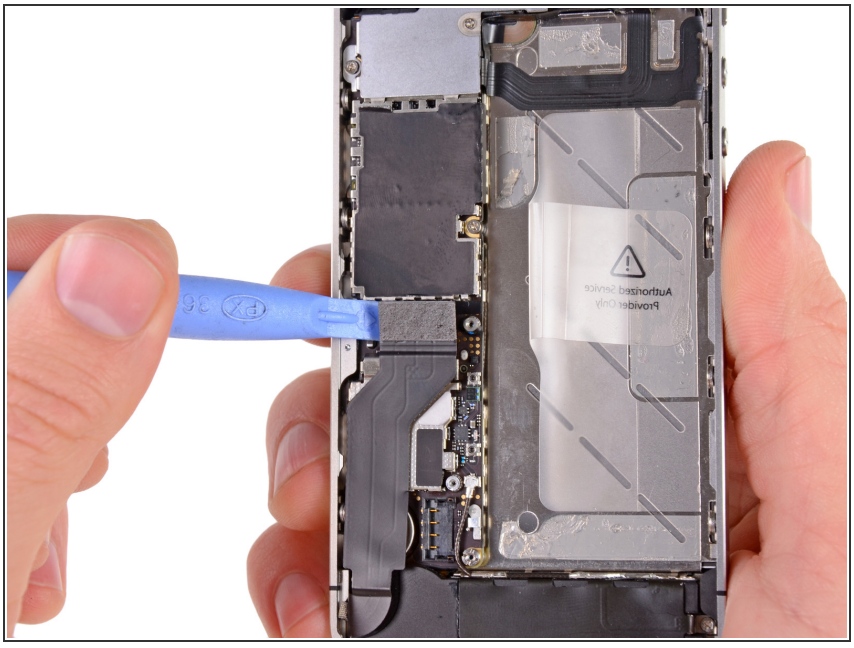
Step 8 — Dock Connector Cable





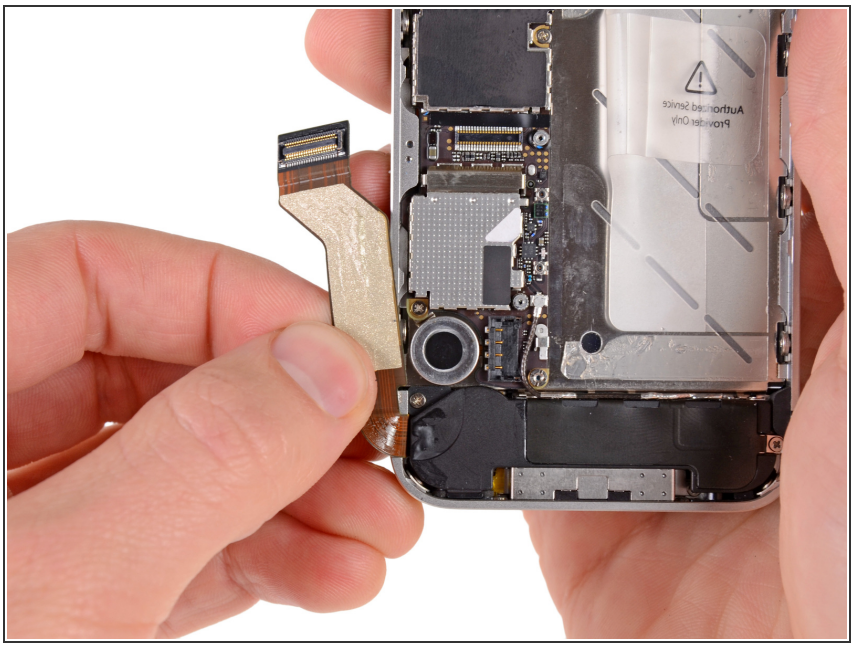
- Remove the following screws securing the dock connector cable cover to the logic board:
  - One 1.5 mm Phillips screw
  - One 1.2 mm Phillips screw
- Remove the metal dock connector cable cover.

Step 9



- Use the edge of a plastic opening tool to pry the dock cable up from its socket on the logic board.

Step 10

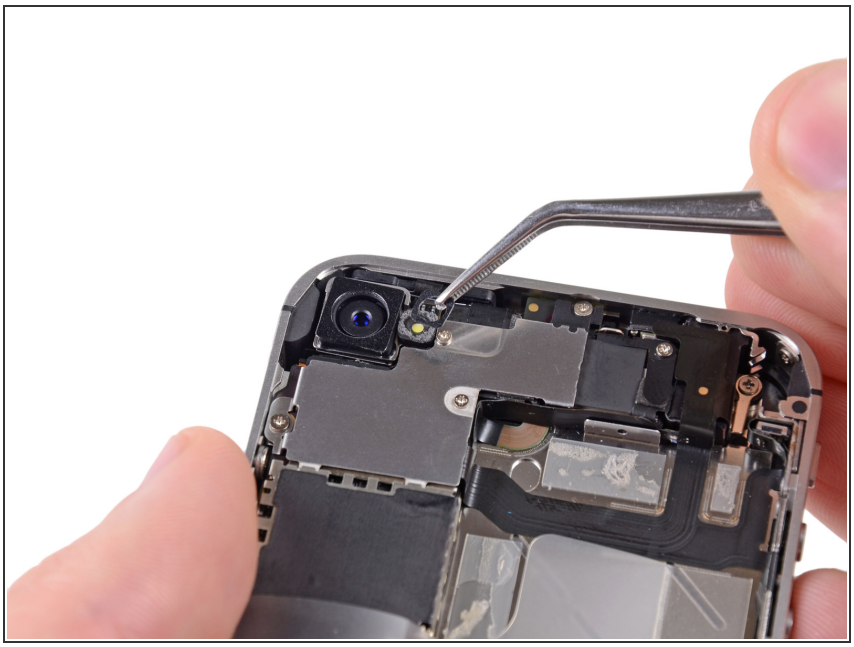


- Peel the dock connector cable off the adhesive securing it to the logic board and the side of the speaker enclosure.

Step 11

- Use the edge of a plastic opening tool to pry the cellular antenna cable up from its socket on the logic board.
- De-route the cellular antenna cable out from under the metal fingers attached to the logic board.

Step 12 — Rear Camera



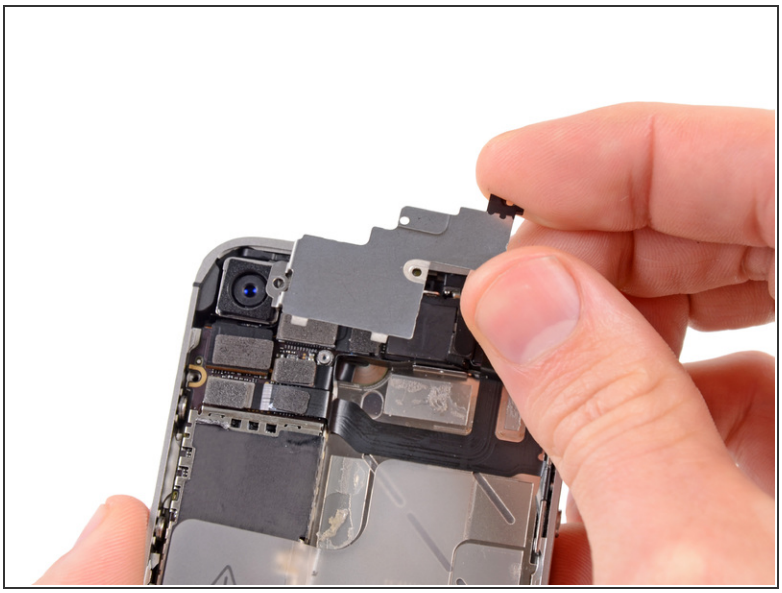
Be wary of the outer plastic ring located on top of the rear camera's flash assembly. It can be easily displaced if not removed during disassembly.

You can use tweezers, a plastic opening tool, or a spudger to remove the outer plastic ring.

Step 13

- Remove the following four screws securing the cable cover to the logic board:
  - One 2.7 mm Phillips screw
  - One 2.6 mm Phillips screw
  - One 1.3 mm Phillips screw
  - One 1.2 mm Phillips screw

Step 14



- Use the edge of a plastic opening tool to pry the cable cover tabs out of their slots cut into the EMI shield on the logic board.
- Lift the cable cover from its edge nearest the top and remove it from the iPhone.

Step 15

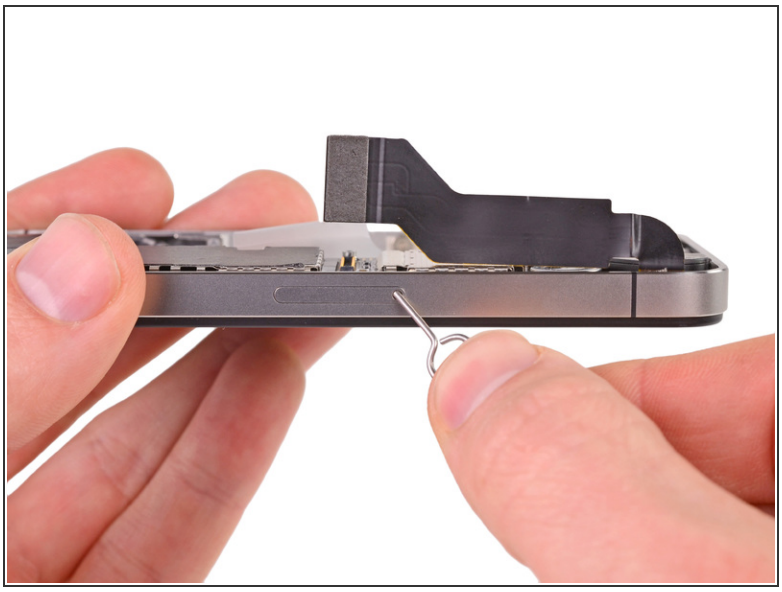
- Use the edge of a plastic opening tool to pry the rear camera connector up from its socket on the logic board.

⚠ Be careful not to break any components off the surrounding area on the logic board as you pry upwards.

- Remove the rear camera from the iPhone.

There is a small rubber gasket that sits underneath the rear-facing camera. Make sure that it is properly seated before reassembly.

Step 16 — SIM Card

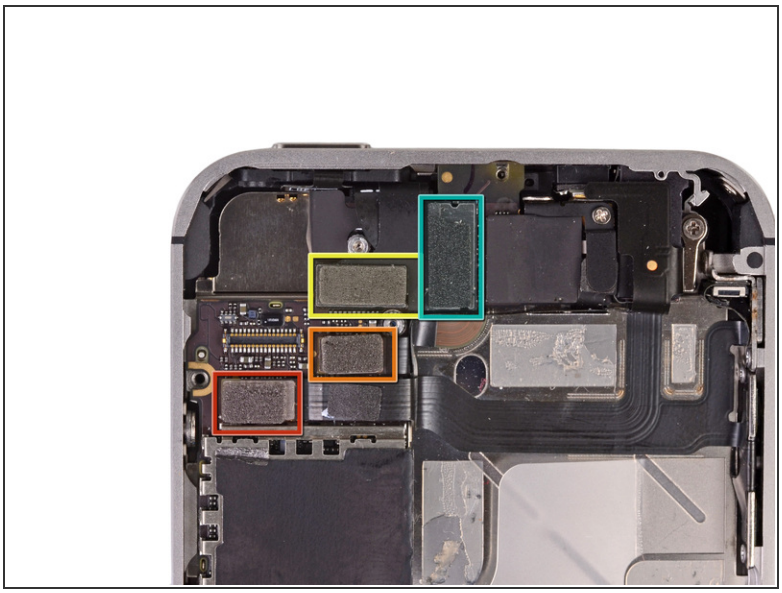


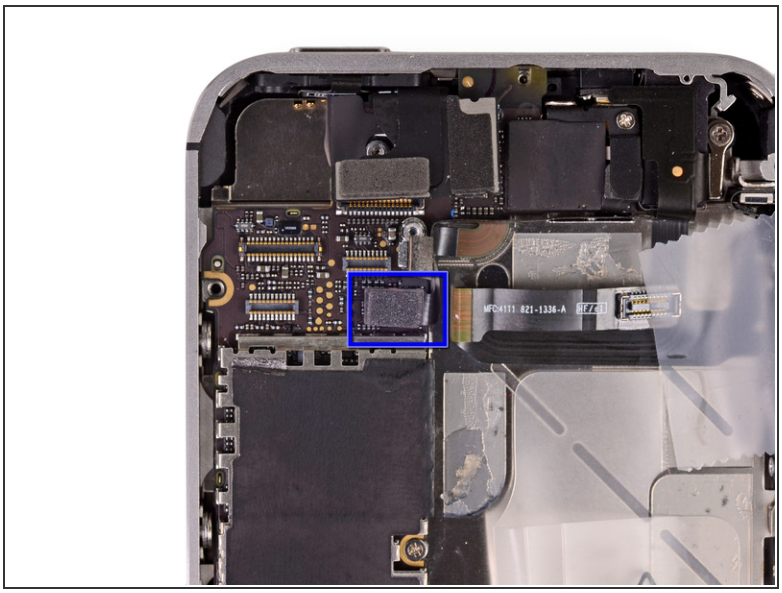
- Use a SIM card eject tool or a paperclip to eject the SIM card and its holder.

⚠ This may require a significant amount of force.

- Remove the SIM card and its holder.

Step 17 — Logic Board



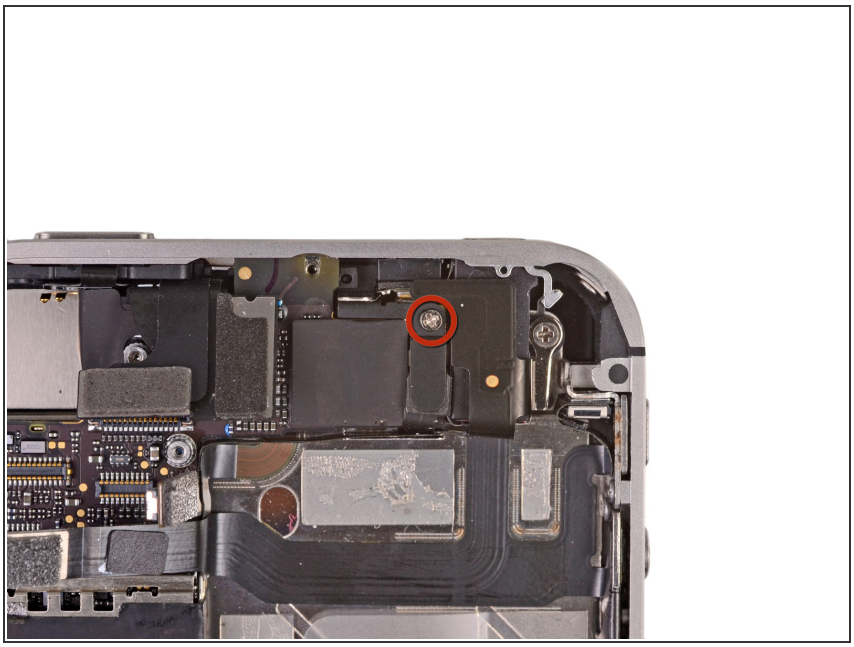


- Remove the five cables near the top of the logic board in the following order:
  - Headphone jack/volume button cable
  - Front facing camera cable
  - Digitizer cable
  - Display data cable
  - Power button cable (located underneath the headphone jack/volume button cable as shown in the second picture.)

To disconnect the cables, use the edge of a plastic opening tool to gently lift their connectors up and out of the sockets on the logic board.

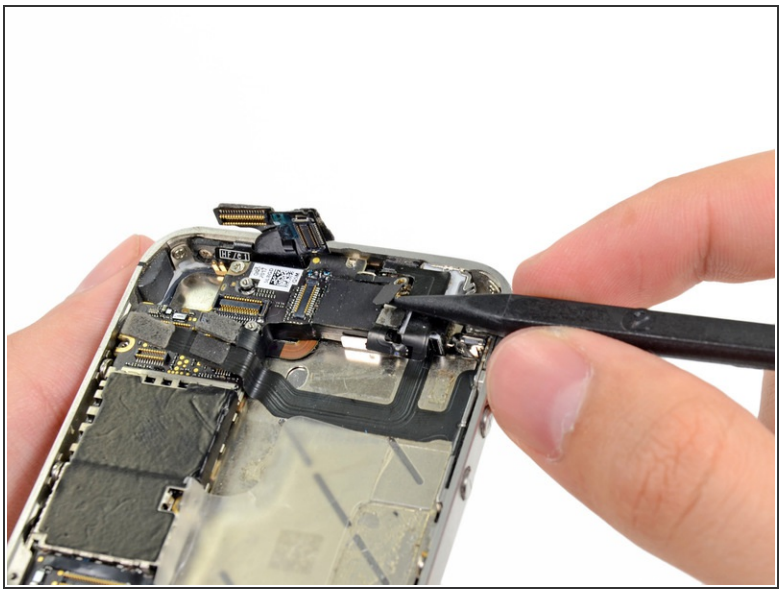
Be careful not to break any of the small and delicate surface mount components as you disconnect the cables.

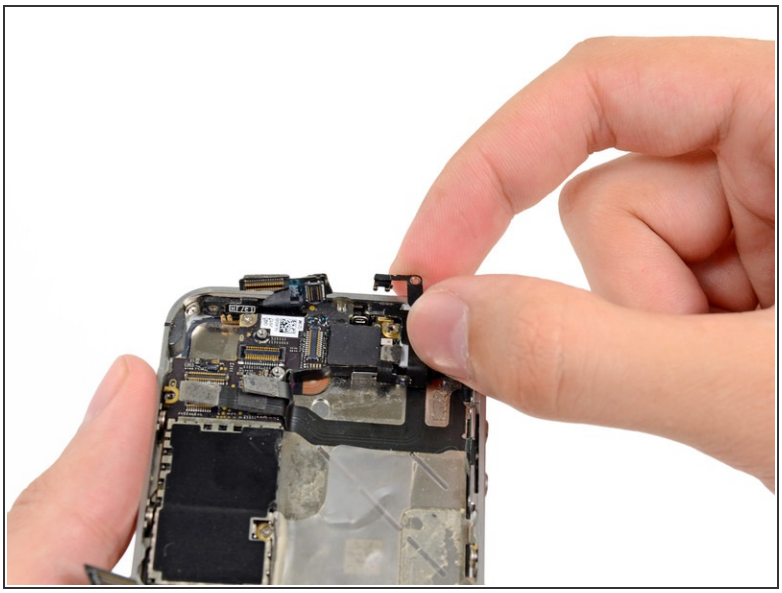
Step 18



- Remove the 1.5 mm Phillips screw securing the grounding clip to the logic board near the headphone jack.

Step 19

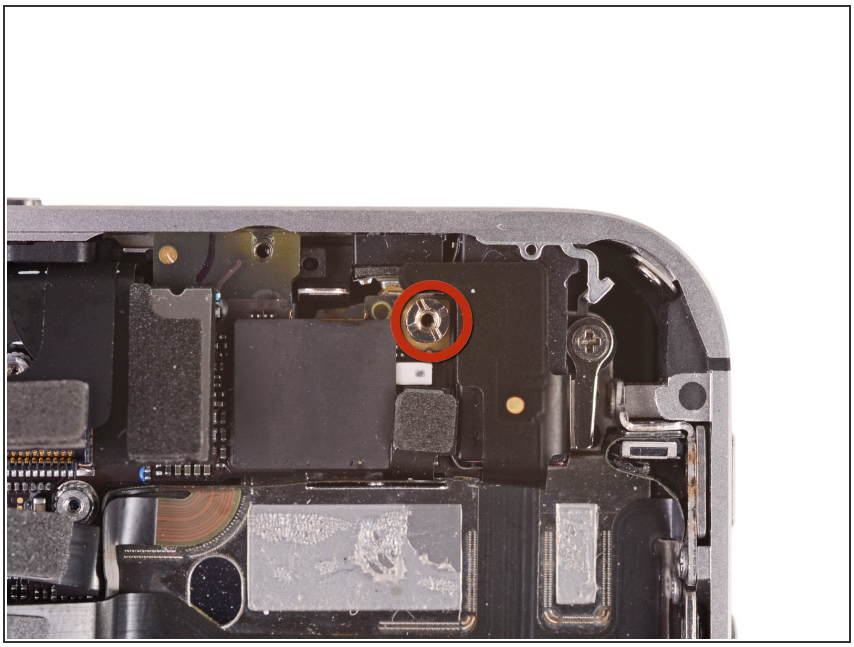




- Use the tip of a spudger to pry the small grounding clip up off the logic board.
- Carefully grasp the grounding clip and remove it from the iPhone.

⚠ Before reassembly, be sure to clean all metal-to-metal contact points on the grounding clip (**not** the mating halves of connectors) with a de-greaser such as windex or isopropyl alcohol. The oils on your fingers have the potential to cause grounding issues.

Step 20

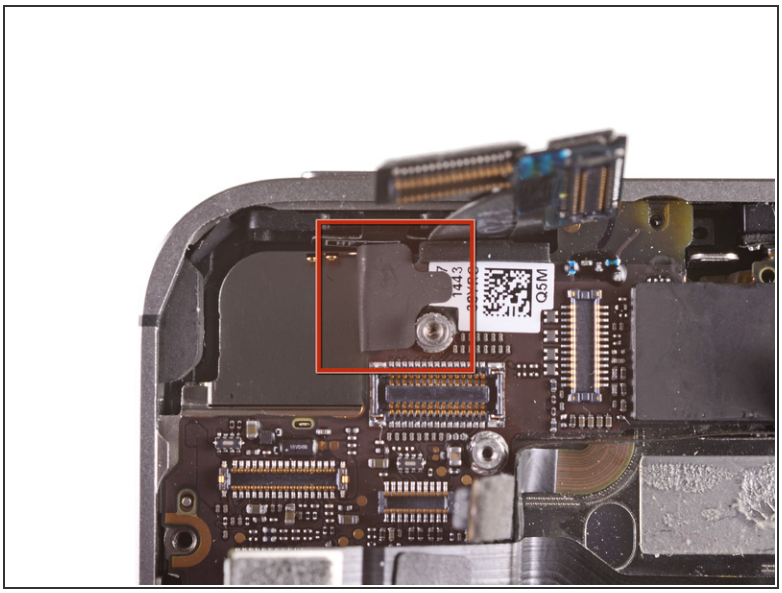


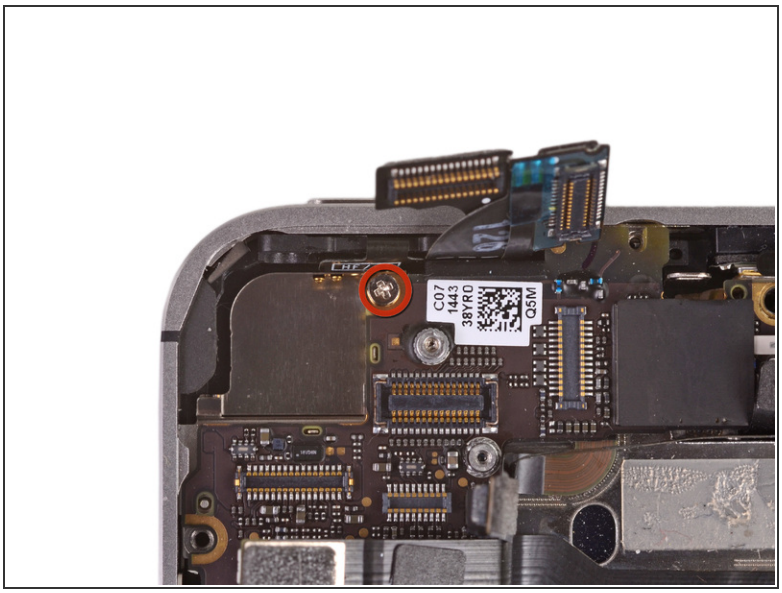
- Use a standoff bit or a small flathead screwdriver to remove the 4.8 mm standoff near the headphone jack.

Step 21

- Use the edge of a plastic opening tool to disconnect the Wi-Fi antenna from the logic board.

Step 22



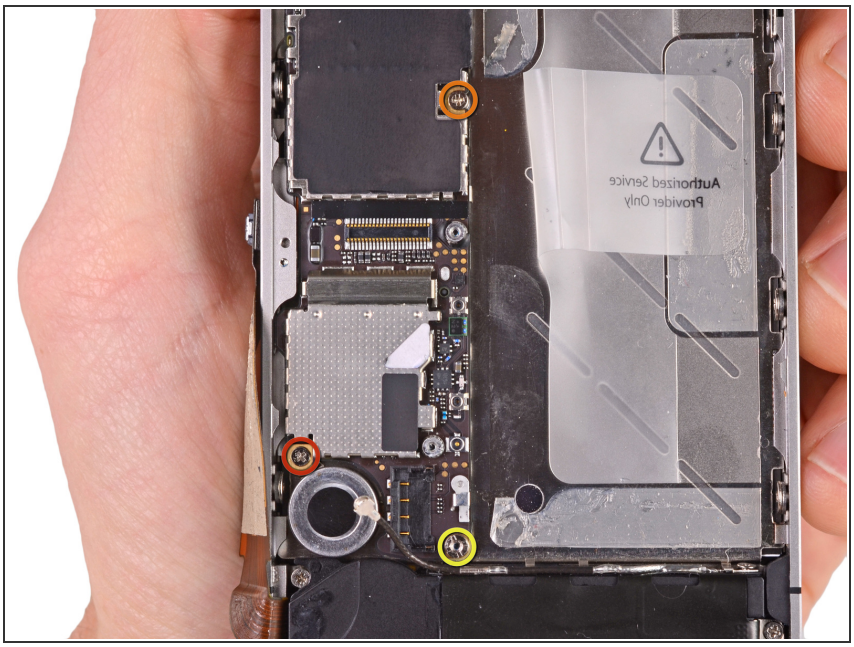


- If present, peel the piece of black tape covering the hidden screw near the power button.
- Remove the 2.6 mm Phillips screw securing the logic board near the power button.

⚠ (Use caution when removing this screw and removing the power contact held by it; the contact tab will come loose with the screw)

ⓘ Notice the small rubber bumper under the screen & digitizer cables (which are detached at top above the Q-code). This bumper can fall off of the logic board when removed or get stuck to the cables and fall off later.

Step 23



- Remove the following screws securing the logic board to the case:
  - One 2.5 mm Phillips screw near the vibrator motor
  - One 2.4 mm Phillips screw
  - One 3.6 mm standoff along the side of the logic board nearest the battery opening.

Use a standoff driver bit or a small flathead screwdriver to remove the single 3.6 mm standoff screw.

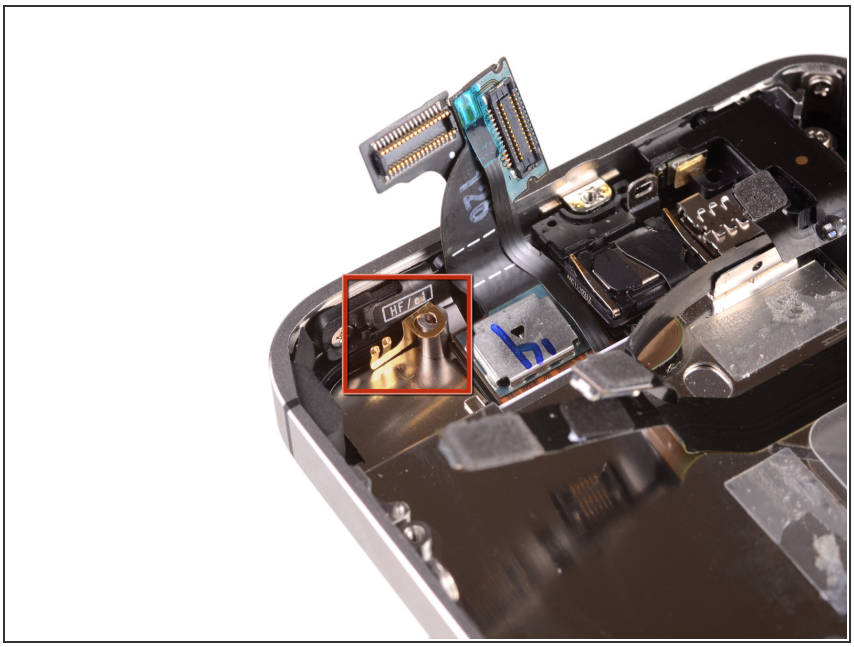
Step 24

- Carefully lift the logic board from the end closest to the speaker enclosure and slide it away from the top edge of the iPhone.
- Remove the logic board.

Before reassembly, be sure to clean all metal-to-metal contact points on the logic board (**not** the mating halves of connectors) with a de-greaser such as windex or isopropyl alcohol. The oils on your fingers have the potential to cause grounding issues.

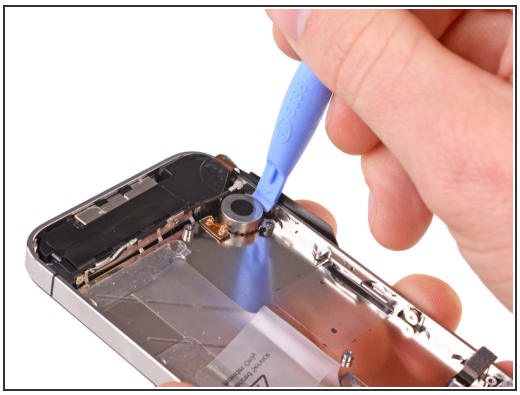
There is a small rubber bumper that sits on the top edge of the logic board where the digitizer and screen cables come through the case. It protects the cables as they bend over the top of the logic board. This can either get stuck to the cables or fall off the logic board when it comes out. Look back over step 22 for more details.

Step 25



⚠ Be sure not to lose the small grounding finger for the rear facing camera near the power button. This finger rests on top of the PCB, screwed down, and covered with the adhesive black plastic tape.

Step 26 — Vibrator



- Wedge the plastic opening tool between the vibrator and the side of the iPhone.
- Pry the vibrator up to release it from the adhesive securing it to the iPhone.
- Remove the vibrator.

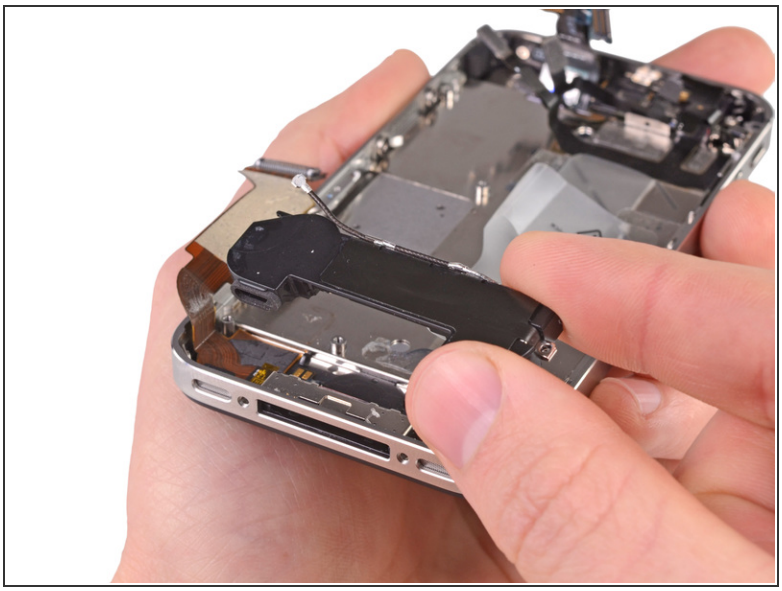
Step 27 — Speaker Enclosure Assembly

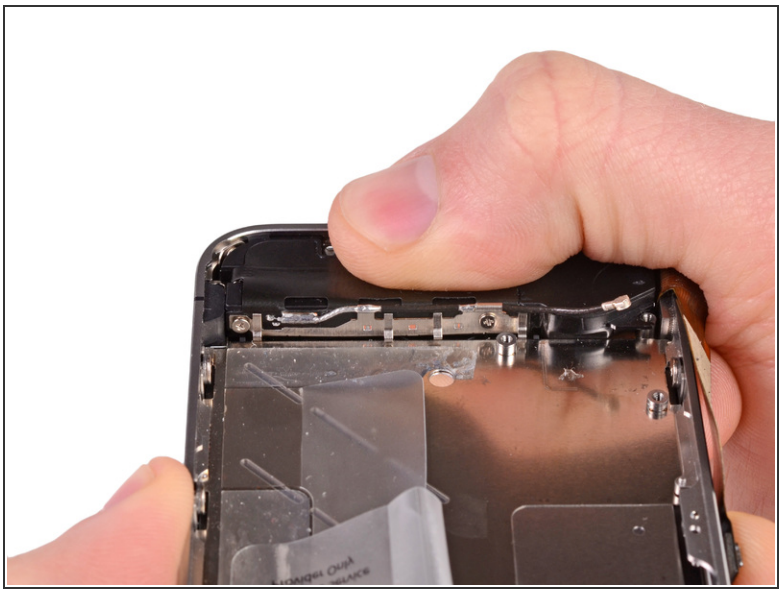
- Remove the two 2.4 mm Phillips screws from the sides of the speaker enclosure assembly.

Step 28

- Remove the small plastic bracket that was installed under the screw closest to the dock connector cable.

Step 29



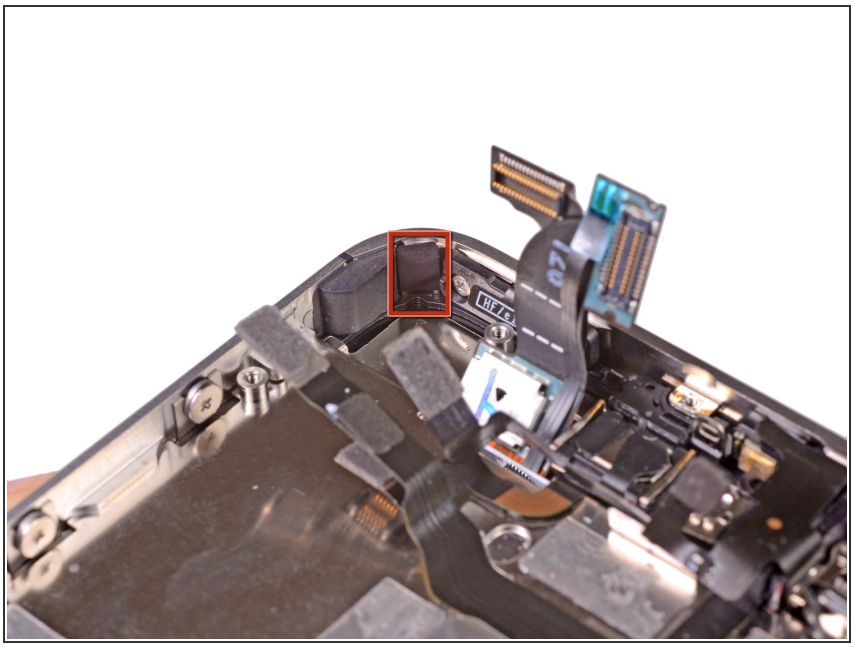


- Remove the speaker enclosure assembly from the iPhone.

Before reinstalling the speaker enclosure assembly's screws, be sure the Wi-Fi grounding fingers are installed below the lip in the iPhone's metal case as seen in the second picture.

Before reassembly, be sure to clean all metal-to-metal contact points between the grounding fingers of the Wi-Fi antenna and the case of the iPhone with a de-greaser such as windex or isopropyl alcohol. The oils on your fingers have the potential to cause wireless interference issues.

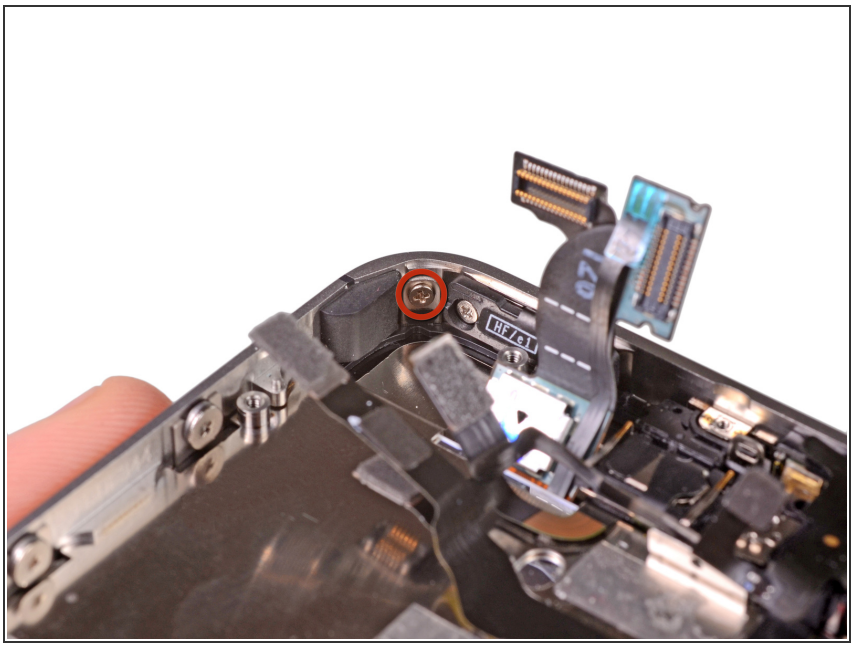
Step 30 — Display Assembly



- Remove the small pieces of black tape covering the display mounting tabs.

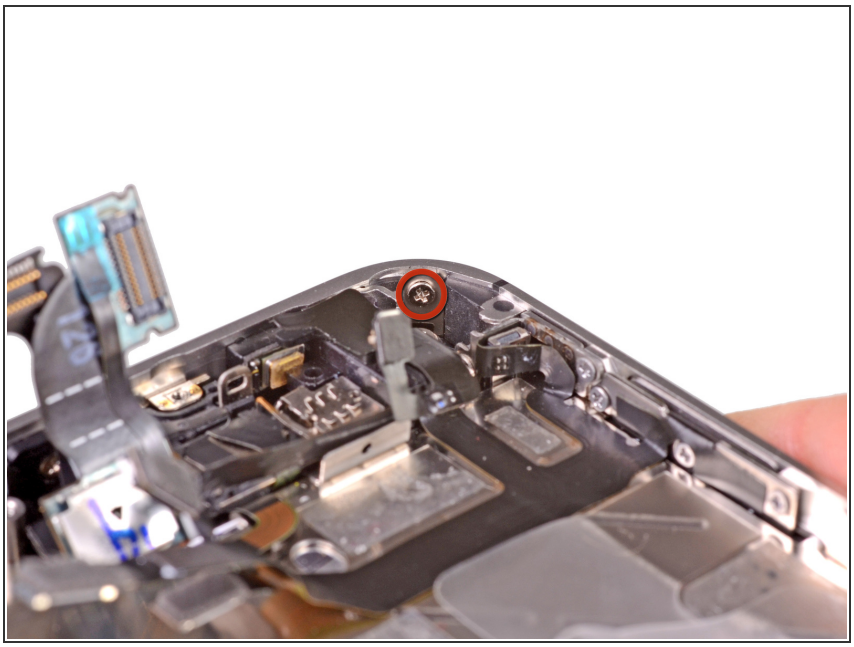
Note: These corner screws are not the same thickness as the other 1.5mm screws. Set them aside separately.

Step 31



- Remove the 1.5 mm Phillips screw securing the display assembly near the power button.

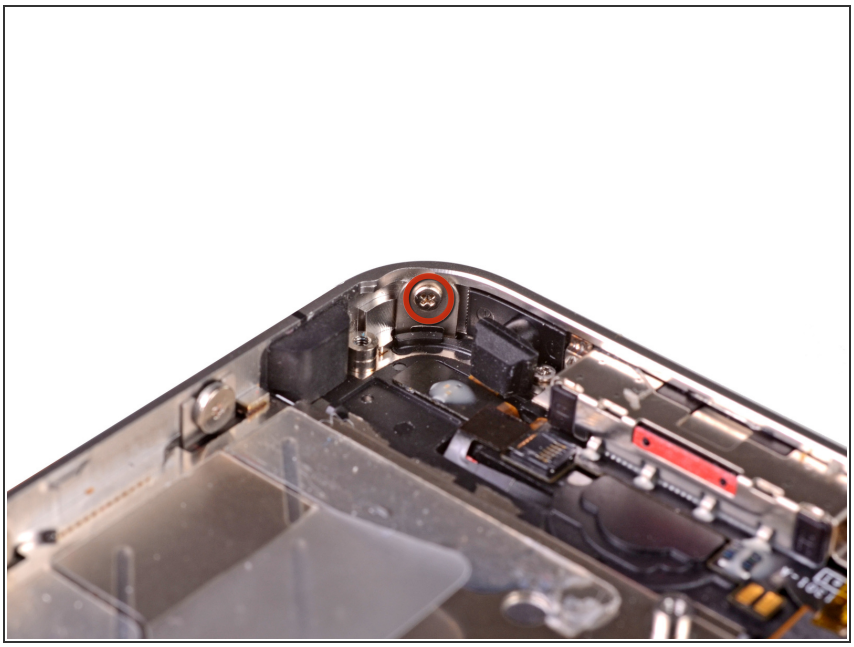
Step 32



- Remove the 1.5 mm Phillips screw near the headphone jack.

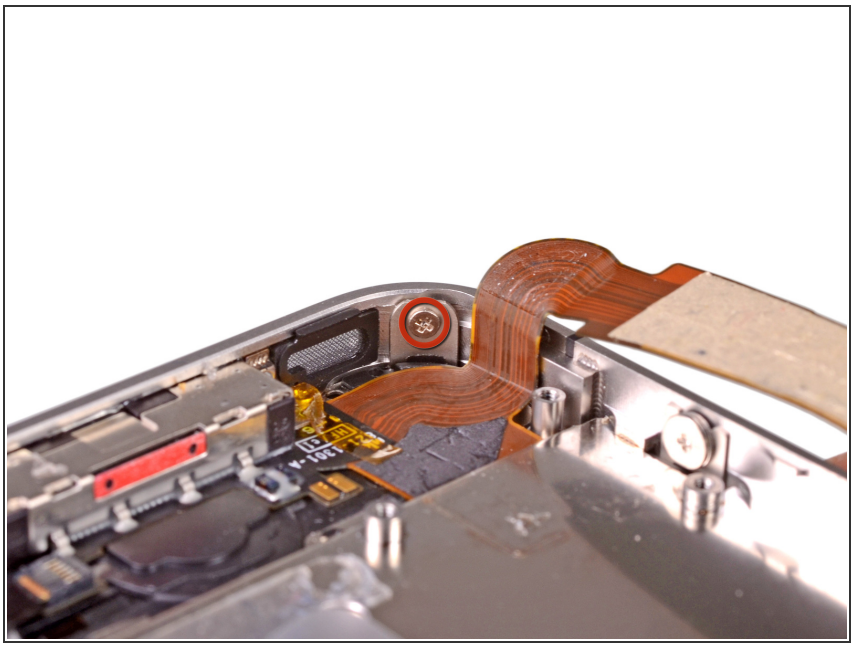
Removing the headphone jack makes it easier to access this screw, particularly during reassembly. If you're having trouble, refer to this section of the iPhone 4S Headphone Jack Cable guide to remove the headphone jack.

Step 33



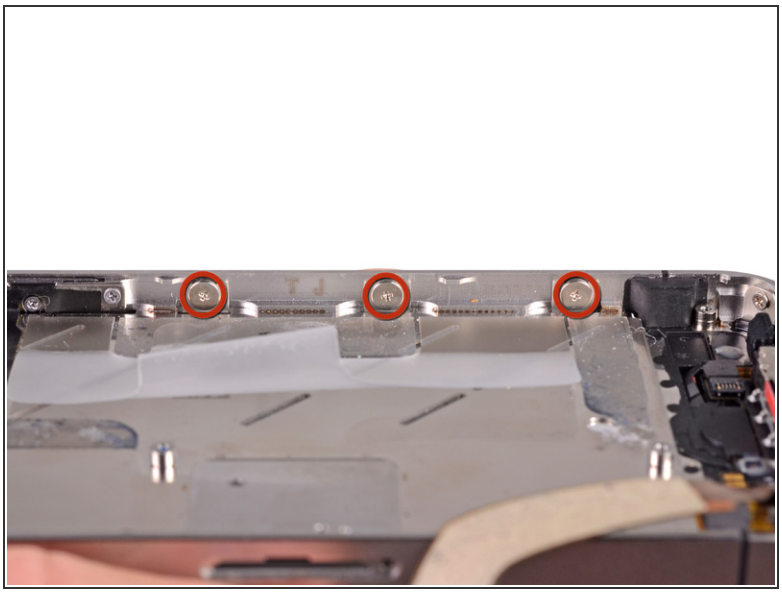
- Remove the 1.5 mm Phillips screw near the lower microphone.

Step 34



- Remove the 1.5 mm Phillips screw near the dock connector cable.

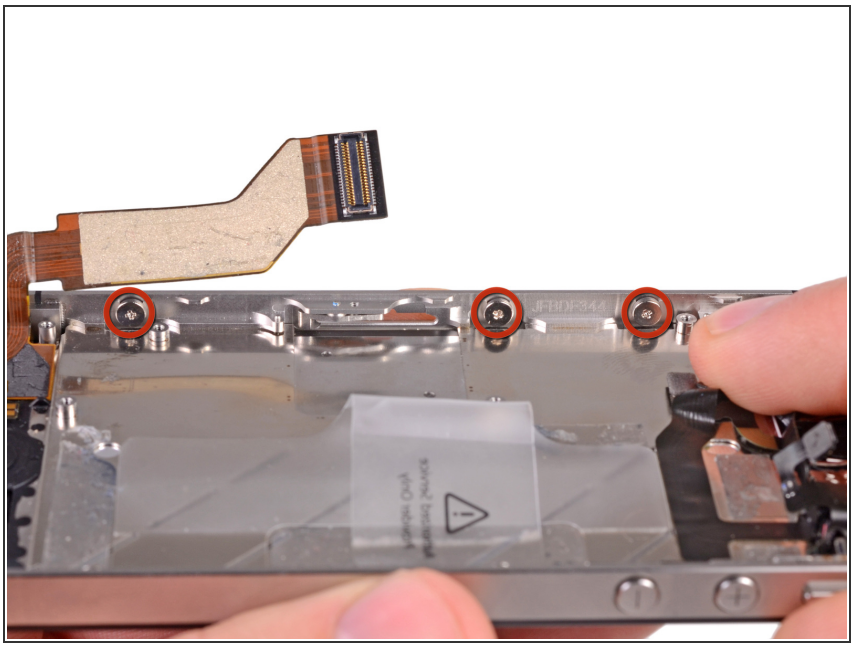
Step 35



- Loosen the three large-headed Phillips screws along the volume button side of the iPhone about one half turn.

It is not necessary to completely remove these screws. When reinstalling the display assembly, be sure the washers are closest to the screw head (as seen in the second picture).

Step 36



- Loosen the three large-headed Phillips screws along the other side of the iPhone about one half turn.

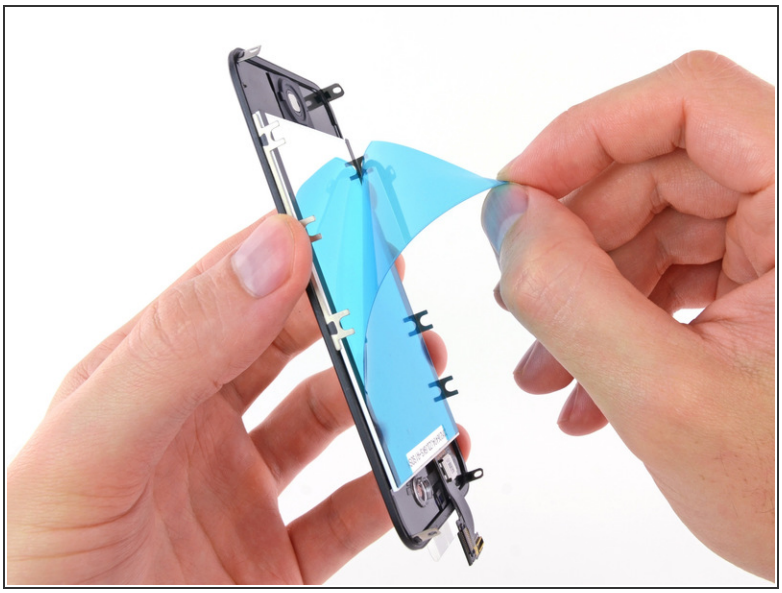
Step 37

- Use the edge of a plastic opening tool to gently pry up the display assembly around its perimeter.

Step 38

- Remove the display assembly from the iPhone.

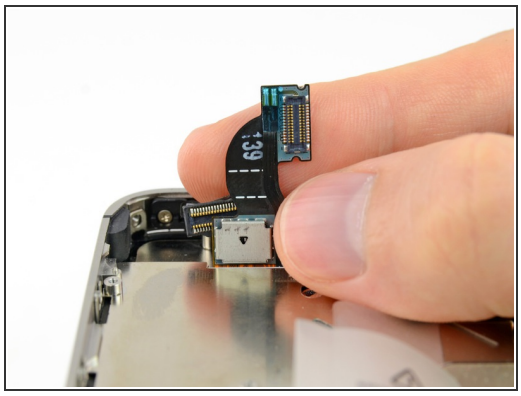
Step 39 — Display Assembly Installation

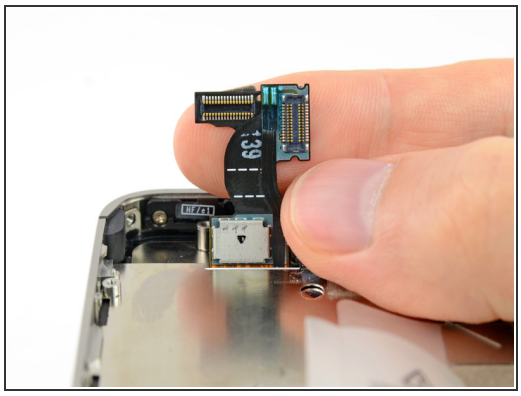


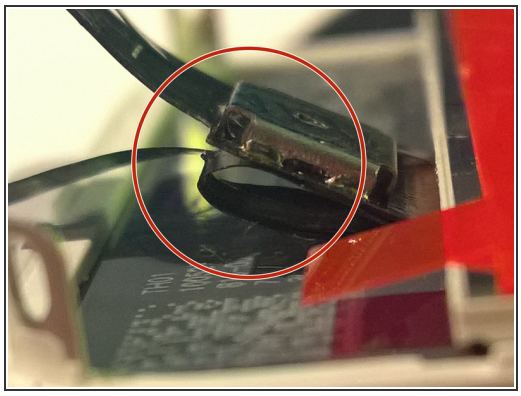
To successfully install a new/replacement display assembly, note the following:

- Remember to switch the home button from your old display to the new display (in most cases, this is not provided). The home button gasket is thin rubber, so care must be taken not to tear it. Also, check that the mesh for the speaker hole is present in the replacement; if not, move it over from the old display.
- Be sure to peel off the protective backing (usually blue or pink) from the new panel before installing it.
- If your replacement display does not come with a 7 mm clear plastic ring surrounding the front-facing camera, be sure to transfer it between the old and new display.

Step 40 — Display Assembly Installation (Cont'd)







Whether installing a replacement display assembly or re-using the existing display assembly, note the following:

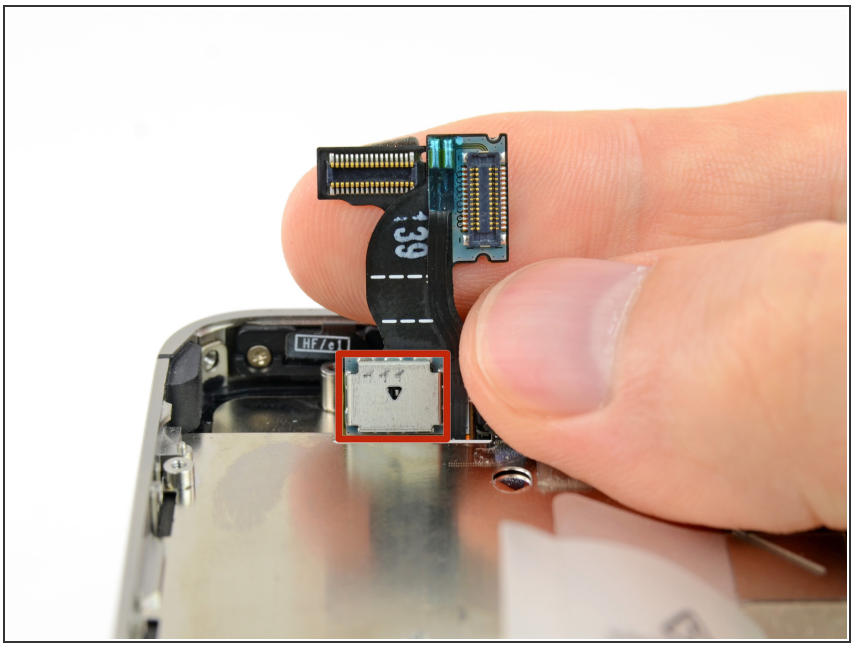
- Carefully straighten the digitizer and LCD data cables, and feed them through the slot cut in the outer case.

The middle photo shows the digitizer cable being correctly fed through to its full length.

- This photo shows the display assembly being installed **incorrectly**, with too much slack in the digitizer cable, which then forms a bend/loop that gets caught in the slot. The third photo also shows this loop.

If the digitizer cable has been installed incorrectly, it will not reach its socket on the logic board. **Do not** attempt to pull it through by force, or it will be cut by the sharp edge of its slot in the enclosure. Remove the display assembly, straighten the cable, and re-feed the cable through completely and correctly.

Step 41 — Display Assembly Installation (Cont'd)



- During reassembly, do not touch the metallic area at the base of the LCD data cable, as this can cause problems with the LCD. If you do touch it accidentally, clean it gently with an alcohol wipe before continuing.

After reassembly, clean the touchscreen surface with an alcohol wipe prior to turning the iPhone back on. The alcohol helps dissipate any lingering static electricity, which can cause problems with the display.

After reassembly, connect the iPhone to an AC power source before turning it on for the first time. Once the iPhone has booted up successfully, you can disconnect the AC power.

- After reassembly, protect your new display from any scratches by installing a new screen protector.

Step 42 — Home Button Assembly

- Use the edge of a plastic opening tool to gently peel the bottom right corner of the home button assembly from the display assembly.

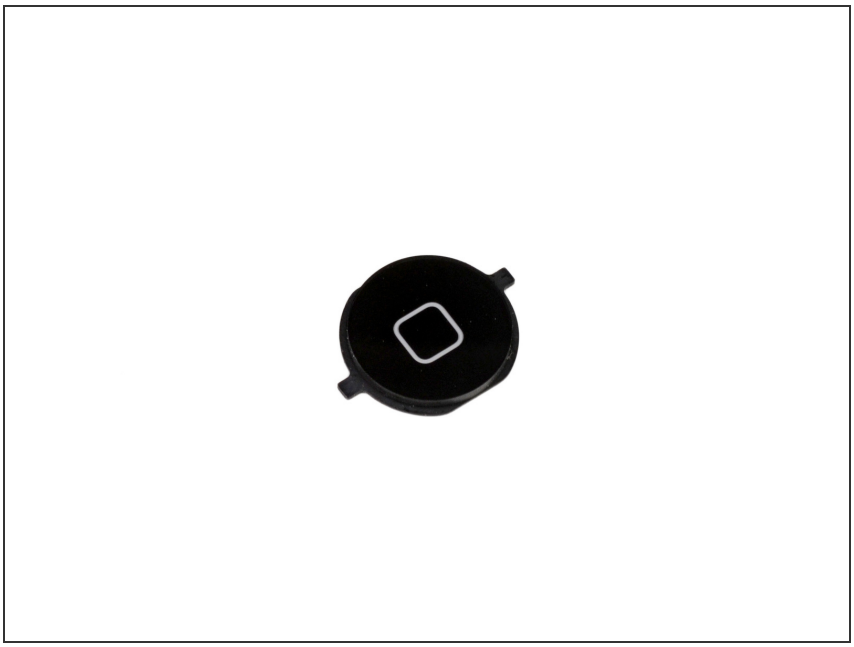
Step 43

- Use a pair of tweezers to peel the home button assembly off the adhesive securing it to the display assembly.
- Remove the home button assembly from the display assembly.

Step 44

- Remove the home button from the home button gasket.

Step 45 — Home Button



- Home button remains.

To reassemble your device, follow these instructions in reverse order.

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